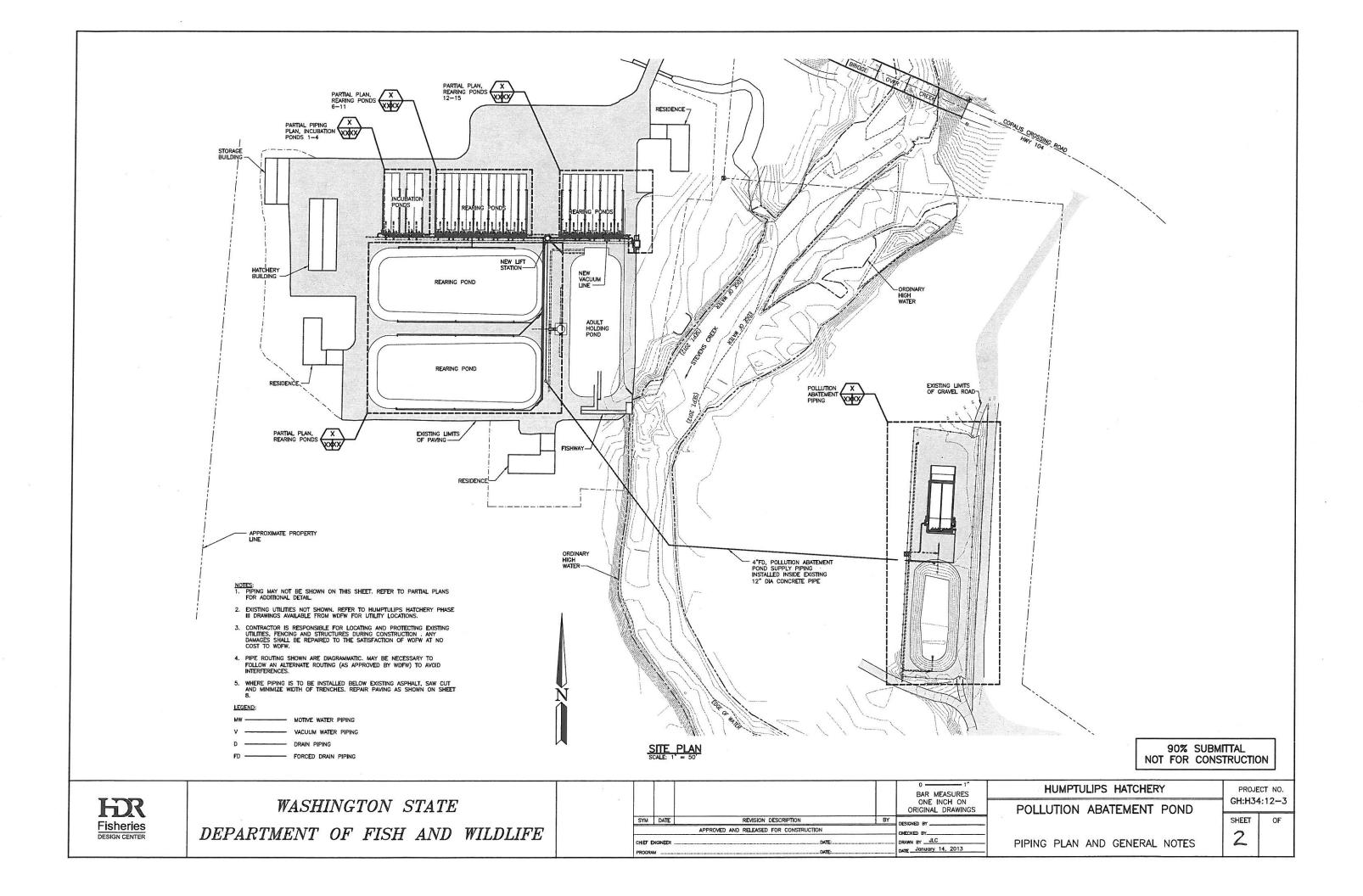


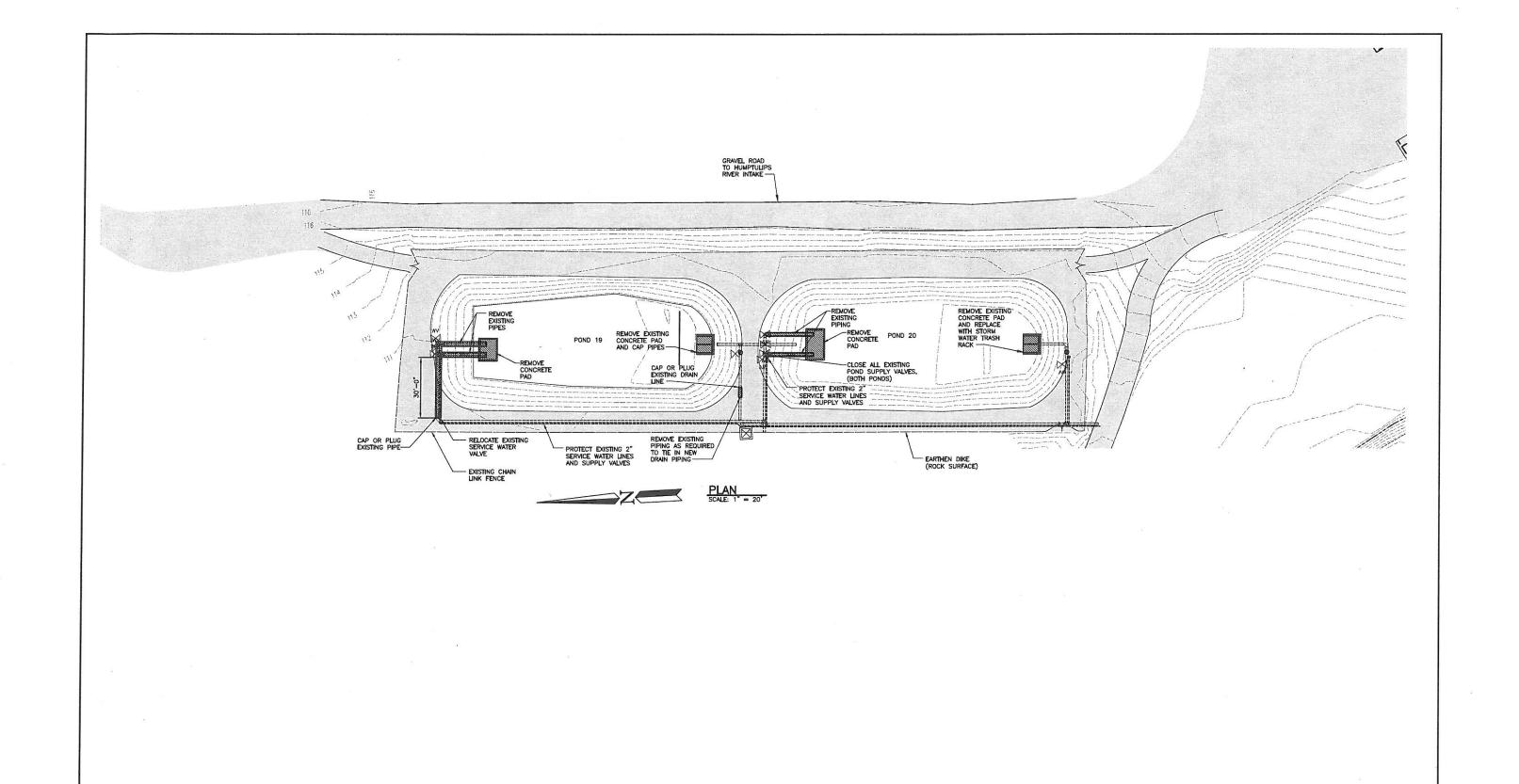
Fisheries DESIGN CENTER

DEPARTMENT OF FISH AND WILDLIFE

					BAR MEASURES ONE INCH ON ORIGINAL DRAWINGS	
Ī	SYM	DATE	REVISION DESCRIPTION	BY	DESIGNED BY	
Ī			APPROVED AND RELEASED FOR CONSTRUCTION	CHECKED BY.		
	CHIEF E	NGINEER	ME	DRAWN BY ACB DATE December 13, 2012		

EXISTING SITE PLAN, STATE MAP AND VICINITY MAP GH:H34:12-3 SHEET OF





90% SUBMITTAL NOT FOR CONSTRUCTION

Fisheries DESIGN CENTER WASHINGTON STATE

DEPARTMENT OF FISH AND WILDLIFE

SYM	DATE A	REVISION DESCRIPTION PPROVED AND RELEASED FOR CONSTRUCTION DATE:	BY	DESIGNED BY
		,		BAR MEASURES ONE INCH ON ORIGINAL DRAWINGS

HUMPTULIPS HATCHERY

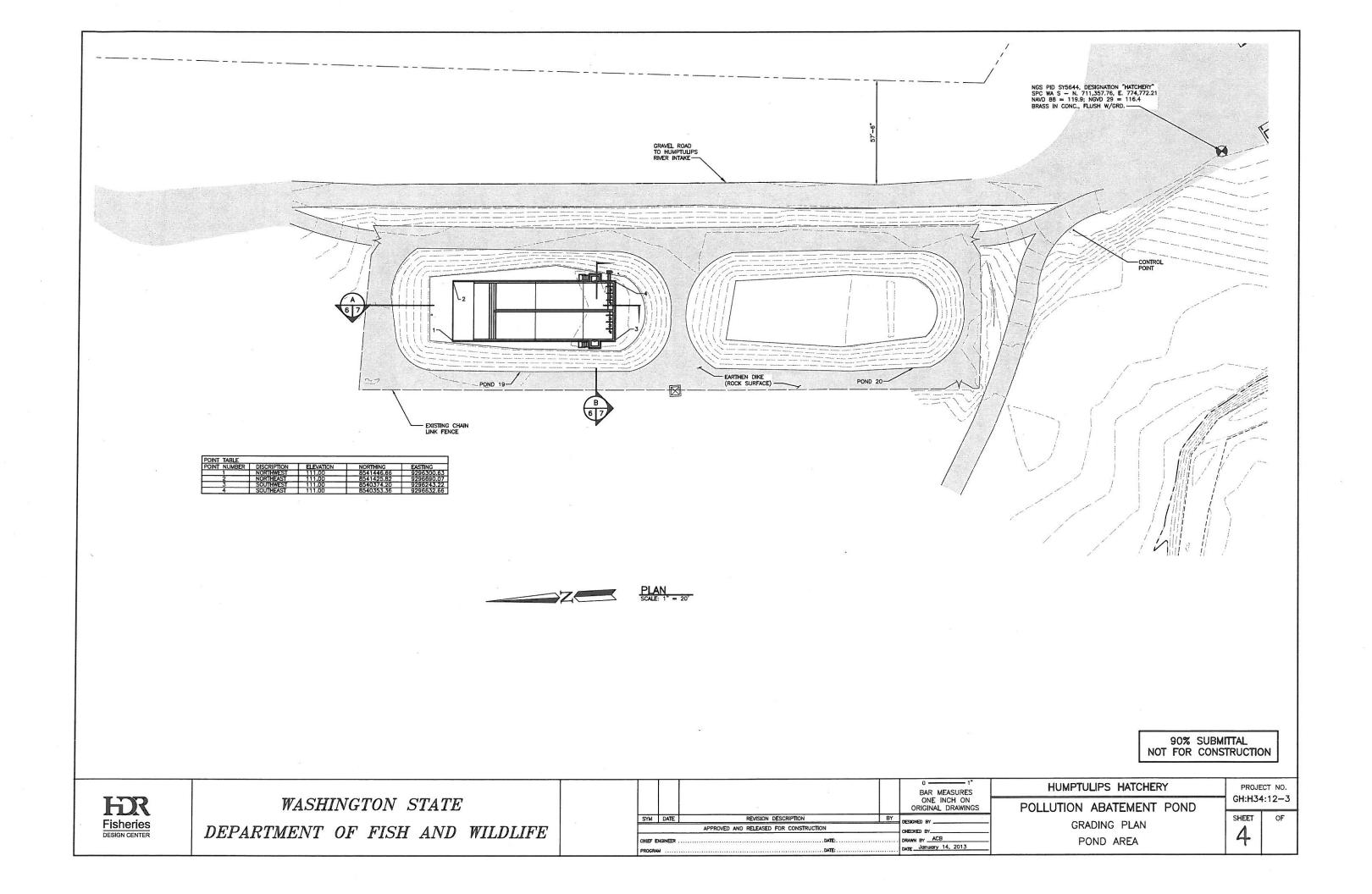
POLLUTION ABATEMENT POND

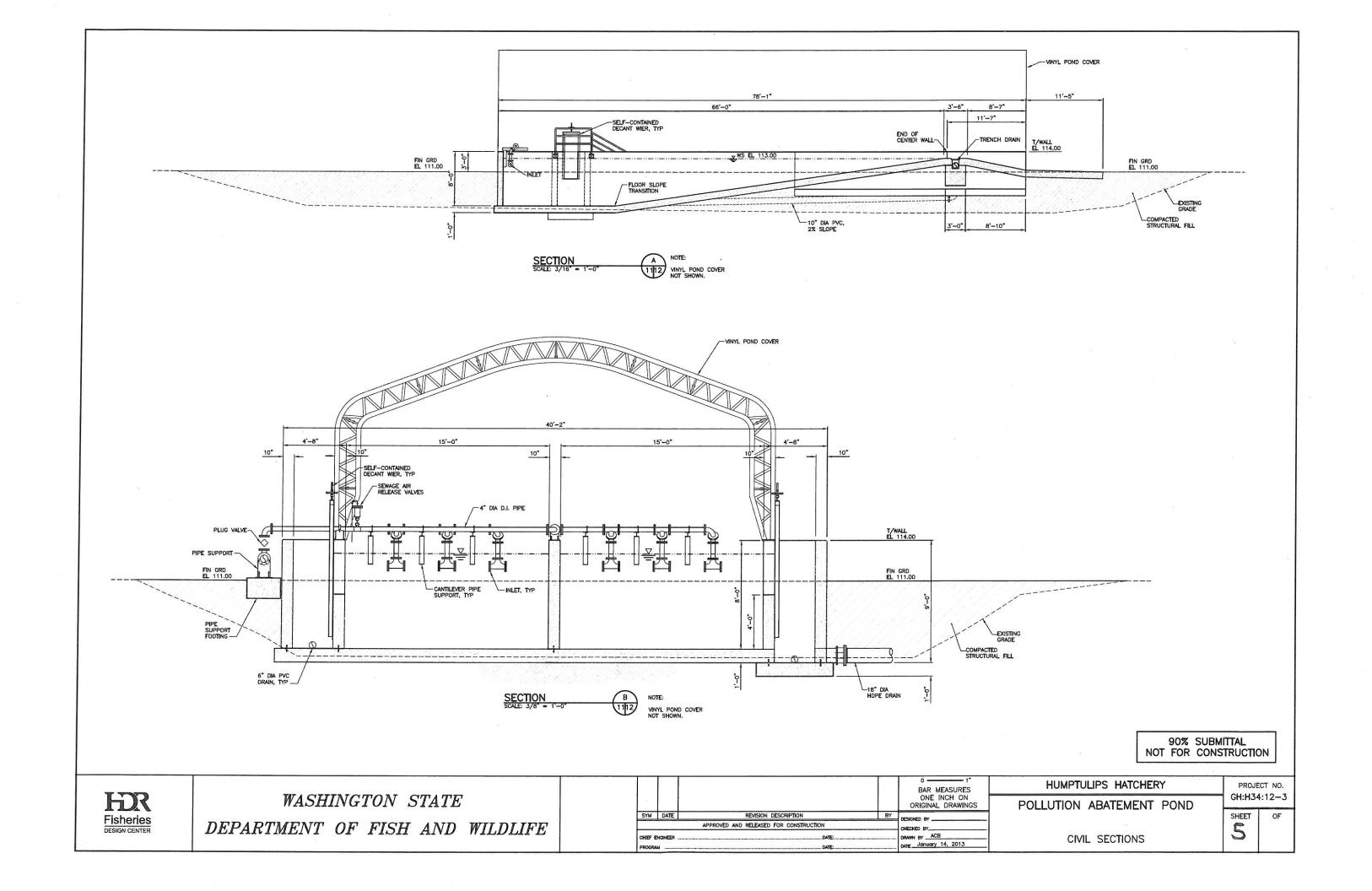
DEMOLITION PLAN

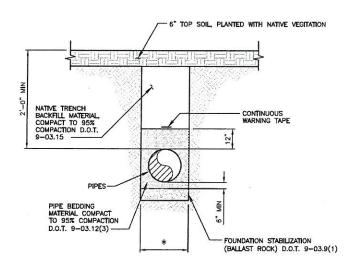
POND AREA

PROJECT NO. GH:H34:12-3

SHEET OF



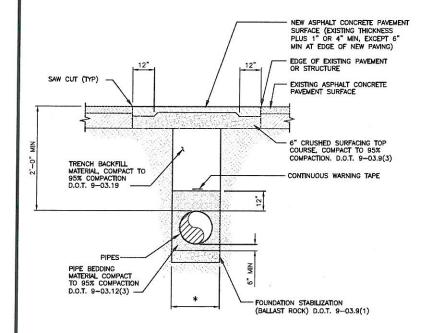




TYPICAL PIPELINE TRENCH DETAIL

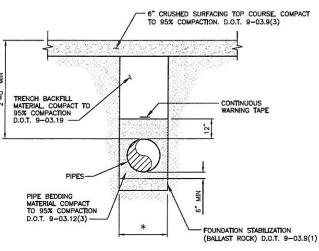
BED THE ENTIRE WIDTH OF THE TRENCH BOX.

* TRENCH WIDTH DIMENSIONS FOR PIPES LESS THAN 18 INCHES ARE OUTSIDE DIAMETER (OD) PLUS 12" AND FOR PIPES GREATER THAN OR EQUAL TO 18 INCHES ARE OUTSIDE DIAMETER (OD) PLUS 24"



UNDER EXISTING PAVEMENT TYPICAL PIPELINE TRENCH DETAIL NO SCALE

* TRENCH WIDTH DIMENSIONS FOR PIPES LESS THAN 18 INCHES ARE OUTSIDE DIAMETER (OD) PLUS 12" AND FOR PIPES GREATER THAN OR EQUAL TO 18 INCHES ARE OUTSIDE DIAMETER (OD) PLUS 24"



UNDER EXISTING GRAVEL AREAS TYPICAL PIPELINE TRENCH DETAIL NO SCALE

* TRENCH WIDTH DIMENSIONS FOR PIPES LESS THAN 18 INCHES ARE OUTSIDE DIAMETER (OD) PLUS 12" AND FOR PIPES GREATER THAN OR EQUAL TO 18 INCHES ARE OUTSIDE DIAMETER (OD) PLUS 24"

NOTES:

BEARING AREA OF CONCRETE THRUST BLOCK BASED ON 200 PSI PRESSURE AND SAFE SOIL BEARING LOAD OF 2,000 PONDS PER SQUARE FOOT.

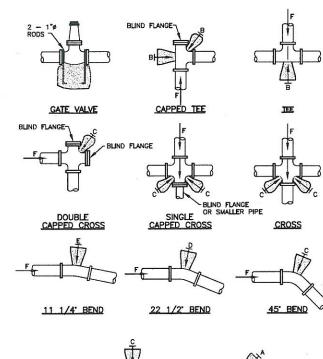
AREAS MUST BE ADJUSTED FOR OTHER PIPE SIZE, PRESSURES AND SOIL CONDITIONS.

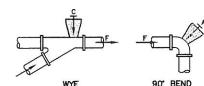
CONCRETE BLOCKING SHALL BE CAST IN PLACE AND HAVE A MINIMUM OF 1/4 SQUARE FOOT BEARING AGAINST THE FITTING.

BLOCK SHALL BEAR AGAINST FITTINGS ONLY AND SHALL BE CLEAR OF JOINTS TO PERMIT TAKING UP OR DISMANTLING OF JOINT.

CONTRACTOR SHALL INSTALL ADEQUATE BLOCKING TO WITHSTAND FULL TEST PRESSURE AS WELL AS TO CONTINUOUSLY WITHSTAND AND OPERATION PRESSURE UNDER ALL CONDITIONS OF SERVICE.

MI. E	EARING		GAINST IARE FE		JRBED S	OIL
PIPE SIZE	A (ft.)²	B (ft.)2			E (ft,)2	X (ft.)2
4*	3	1	1	1	1	NONE
6*	4	4	5	1	1	NONE
8,	7	6	4	2	1	4
10'	11	10	6	3	2	6
12"	16	14	9	5	3	9
14"	55	19	12	6	3	12
16*	29	25	16	8	4	16
18'	36	31	20	10	5	20
50,	45	39	24	13	6	24
55,	54	47	29	15	8	29
24"	64	56	35	18	9	35
28*	87	76	48	24	12	48
30'	101	87	55	58	14	55
36"	145	125	78	40	20	78
42*	197	171	107	55	27	107
48'	257	223	140	71	36	140





TYPICAL THRUST BLOCKS

90% SUBMITTAL NOT FOR CONSTRUCTION



WASHINGTON STATE DEPARTMENT OF FISH AND WILDLIFE

				BAR MEASURES ONE INCH ON ORIGINAL DRAWINGS
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CHIEF E	NGINEER	DATE:	 	. DRAWN BY _ACB
				DATE December 27, 2012

HUMPTULIPS HATCHERY

POLLUTION ABATEMENT POND

CIVIL DETAILS

6

PROJECT NO.

SHEET

OF